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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,418	06/24/2005	Riki Okamoto	52433/803	9229
26646	7590	10/24/2007	EXAMINER	
KENYON & KENYON LLP			YEE, DEBORAH	
ONE BROADWAY			ART UNIT	
NEW YORK, NY 10004			PAPER NUMBER	
			1793	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/540,418

Applicant(s)

OKAMOTO ET AL.

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1-26-07;6-08-06;4-04-06;6-24-05.

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 to 4, drawn to hot rolled steel sheet alloy composition.

Group II, claim(s) 5 and 6, drawn to method of producing hot rolled steel sheet by hot rolling, cooling and coiling.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technical feature that Groups I and II share is the composition of claim 1. This composition does not provide a contribution over the prior art as evident by US Patent 6,589,369 or US Patent 7,267,890. Thus the two groups lack unity of invention. See MPEP 1850.

3. During a telephone conversation with Mr. John Kelly on October 2, 2007 a provisional election was made without traverse to prosecute the invention of Group I, claims 1 to 4. Affirmation of this election must be made by applicant in replying to this Office action. Claims 5 and 6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by CN 1251140 (hereinafter CN'140) cited by Applicant in IDS dated January 26, 2007.

7. CN'140 examples 5 and 8 meet the claimed composition and when calculated, satisfy equations (1) and (2). Also example 5 has a microstructure comprising 80 vol.% ferrite with an average grain size of 4.5  $\mu\text{m}$  and 20 vol.% martensite, and exhibits a tensile strength (TS) of 700 MPA; and example 8 has a microstructure comprising 90 vol.% ferrite with an average grain size of 4.5  $\mu\text{m}$  and 10 vol.% martensite, and exhibits a TS of 620 MPA. See Tables 1 to 4 on pages 19 to 23.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over CN 1251140 (hereinafter CN'140) cited by Applicant in IDS dated January 26, 2007.

10. CN'140 discloses examples 5 and 8 that meet the recited claims for the reasons set forth in paragraph no. 7 but do not include one or more of Ti, Nb, V, Ca, Zr, REM and Mg as recited by claim 2. It would, however, be obvious to include these elements since CN'140 broadly teaches adding such element in small amounts to further enhance properties. See for instance, other steel examples in table 1 that include Nb, Ti, V, B, Ca and/or REM.

11. Claims 1 to 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,589,369 (hereinafter US'369) or Japanese patent 2002-129285 (hereinafter JP'285).

12. The abstract of US'369 and JP'285, each disclose a hot rolled steel sheet having a composition with constituents whose wt% ranges overlap those recited by the claims; such overlap renders Applicants' composition prima facie obvious since it would be obvious for one skilled in the art to select the claimed alloy wt% ranges over the broader disclosure of the prior art since the prior art teaches the same utility (automotive components) and similar properties such as excellent burring and elongation and high tensile strength of at least 590 N/ mm<sup>2</sup>.

13. Moreover similar to present invention, US'369 and JP'186 teach a microstructure having ferrite as the main phase wherein the average ferrite grain size is 2 to 20  $\mu\text{m}$  together with a second phase of either martensite or bainite.

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14. More specifically, example P of US'369 in Table 1 of columns 17-18 meets the claimed composition except for a lower amount of Al, and when calculated, satisfied the claimed equation limitations (1) and (2). Also Table 2 of columns 19-20 shows example P having 94 vol.% ferrite with an average ferrite grain size of 17  $\mu\text{m}$  and 6 vol.% martensite. Even though example P contains 0.026% Al, it would be obvious for one skilled in the art to increase Al content since US'369 teaches a broad upper Al limit of 1% and more preferably 0.5% for deoxidizing.

15. Also JP'285 teaches example M in table 1 of columns 11-12 that closely meets the claimed composition and when calculated, satisfies equation limitations (1) and (2). In Table 2 of columns 15-16, example M is processed according to example 21 and exhibits 85 vol.% ferrite having an average ferrite grain size of 13  $\mu\text{m}$  and 7 vol.% bainite and 8 vol.% retained austenite.

#### ***Information Disclosure Statement***

16. The information disclosure statement filed April 4, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on monday-friday 6:00 am-2: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Deborah Yee/  
Primary Examiner  
Art Unit 1793

/DY/